

EHR SITE, WINDING ENGINE 756, GYMPIE

UPDATE, 6th October 2014, BL McGrath

On Sunday 6th October 2014 I travelled from Brisbane to the Gympie Gold Mining and Historical Museum on the occasion of the museum's annual steam day to check on the Historic Engineering Marker (HEM) for Winding Engine Number 756, awarded in August 1986 under the EHA programme of Engineering Heritage Recognition.

The EHA website has very little information about this engine; the link is <http://www.engineersaustralia.org.au/engineering-heritage-australia/engineering-heritage-recognition-program>

The Museum is situated at 215 Brisbane Road, Gympie. The Winding Engine and its brass HEM are located in a building adjacent to the headframe of the No 2 South Great Eastern gold mine. Also located in this building are a boiler, a steam-driven compressor and a 100V DC generator, together with a workshop and tools.



The Winding Engine Building

The late Professor Ray Whitmore, who prepared the Nomination for the Winding Engine, was unable to obtain any information from its manufacturers as all Walkers Limited records prior to 1930 had been lost. The provenance of this Winding Engine has been derived from what are considered to be fairly reliable framed documents on the internal wall of the building.



One of the internal walls carrying framed documents.

The HEM, located centrally in the above picture, reads



Walkers Limited of Maryborough, Queensland, manufactured this steam winding engine in 1899.

One of the framed documents (mentioned above) deals with the engine characteristics as follows:

The winding engine is known as a first motion steam winding engine. First motion, because no gearing is used, the steam pistons by way of piston rods, crosshead and connecting rods drive directly on the crankshaft which carries the rope drums.

The steam cylinders and pistons are the simple type or single expansion.

The engine is purely manually operated by the winding engine driver. The controls consist of a steam inlet valve, a reversing lever and a pedal brake on each rope drum.

The engine is not fitted with any governor mechanism, the speed of the engine only being controlled by amount of steam admitted by steam valve and position of the reversing lever to allow for a greater or lesser expansion of steam used.

Both rope drums are fitted by means of dog clutches to a common crankshaft. That means that at all times both drums revolve in the same direction. To allow a balanced load on the engine when one cage is being raised the other cage is being lowered. This is arranged by one rope being wound on one drum from the top of the drum and the other rope being wound on the other drum from the bottom of the drum, or one rope is wound clockwise on one drum and the other rope anti-clockwise on the other drum. The brakes are usually only used at the end of each winding cycle to ease the loaded cage on to the chairs so that the cage remains static for the loaded ore truck to be removed from same on to the flat sheet. The dials at front of engine indicate to the driver the different levels in the mine. There were twelve different levels worked in this mine; the top level being 690ft. (210 metres) and the bottom level 2000ft (609metres).

The original engine on this foundation was broken up for scrap metal, a fate suffered by most mining machinery used on the Gympie field. This particular machine was used on the No.3 Scottish Mine at Gympie, and then taken to the Ipswich coalfield in the late twenties where it had been kept for the last forty or more years just in case it had to be used in case of emergency, as an exit from the mine. It was then powered by compressed air.

The engine was built by Walkers Limited, Maryborough, Queensland in 1899. Much of the mining machinery, crushing batteries, steam engines, winding engines, steam boilers etc used in Gympie were built by this Company.

The winding engine was donated to the Society by the Rhonda Colliery.

Another of the framed documents reads as follows:

FEATURES OF DIRECT MOTION WINDING ENGINE

WINDING ENGINE NO. 756

made by

WALKERS LTD. IN 1899

THIS WINDING ENGINE WAS PURCHASED by

NO. 1 SOUTH GYMPIE.

IN 1909 IT BECAME KNOWN AS NO. 3 SCOTTISH

ENGINE WAS HAULING FROM APPROX 2,700 to 2,800feet (823m to 260m) *

THE SHAFT HAD 13 MAIN LEVELS

THE THIRTEENTH LEVEL WAS AT 2,588ft. (240m) *

ALL ORE WAS SENT TO SCOTTISH BATTERY BY FLYING FOX

DRUMS WILL HOLD 4,600FT. (427m) * OF NON-FLEXIBLE ROPE

IT HAS STEAM ASSISTED REVERSING LINKAGE & STEAM ASSISTED BRAKES

18INCH (45.7CM) CYLINDERS – STROKE 42inch (106.7CM)

CIRCA 1927 IT WAS SOLD TO RHONDA COLLIERY, AT BUNDAMBA

DISMANTLED AND BROUGHT HERE IN 1982

THE 2 SOUTH GREAT EASTERN HAS 12 MAIN LEVELS

(which are then listed)

*Note * not all the metric conversions are correct.*

Finally, another brass plaque on the wall reads as follows:

THIS STEAM WINDING ENGINE MADE
BY
WALKERS LTD. OF MARYBOROUGH
QLD. IN 1899
ONE OF THE MANY MADE FOR THE GYMPIE GOLDFIELDS
THIS ENGINE OPERATED IN GYMPIE UNTIL PURCHASED
BY RHONDDA COLLIERIES IN 1922
DONATED BACK TO GYMPIE BY
RHONDDA COLLIERIES IPSWICH QLD.
IN 1983
FULLY RESTORED BY-
MEMBERS & FRIENDS OF THE GYMPIE & DISTRICT
HISTORICAL SOCIETY INC.

Despite some inconsistencies in spelling, dates and metric conversions, the above give a good idea of the history and specifications of this winding engine.

A final comment: much of Gympie is situated on the flood plain of the Mary River and is subject to frequent flooding. The front wall of the shed housing the Winding Engine has marks (just visible on the shed photo above) indicating the level of some seven floods since 1989 that have entered the building. The fact that the winding engine and the ancilliary machinery in this shed have after each flood been restored to full working order, is a tribute to the dedicated volunteers of the Historical Society.



General view of the Winding Engine from the driver's platform/pistons end



A closer view of a cylinder, piston and connecting rods and the rope drums